

VSMP PERMIT FACT SHEET

This document gives pertinent information concerning the Virginia Stormwater Management Program (VSMP) Permit listed below. This permit is being processed as a **MAJOR, MUNICIPAL** permit. The Municipal discharge results from the operation of the Chesterfield County Municipal Separate Storm Sewer System (MS4).

1. **FACILITY NAME AND ADDRESS:** Chesterfield County MS4 Throughout Chesterfield
2. **PERMIT NUMBER:** VA0088609 **PERMIT EXPIRATION DATE:** March 23, 2008
3. **OWNER:** Chesterfield County
OWNER CONTACT: Scott Smedley, PE
TITLE: Director of Environmental Engineering
PHONE: (804) 748-1035
ADDRESS: P.O. Box 40
 Chesterfield, VA 23832-00400
4. **PERMIT DRAFTED BY:** DEQ, Office of VPDES Permits
 Permit Writer: Jaime Bauer Date: July 24, 2014
5. **RECEIVING WATERS CLASSIFICATION & INFORMATION:** Discharges from the permittee's MS4 enter the following HUC watersheds:

Hydrologic Unit Code (HUC)	Corresponding National Watershed Boundary Dataset 6th Order Number	HUC Name
JA23	020802070603	Appomattox River-Skinquarter Creek
JA28	020802070604	Appomattox River-Smacks Creek
JA34	020802070801	Appomattox River-Winticomack Creek
JA35	020802070802	Winterpock Creek
JA36	020802070803	Appomattox River-Lake Chesdin-Nooning Creek
JA39	020802070806	Appomattox River/Lake Chesdin-Cattle Creek
JA40	020802071001	Appomattox River-Old Town Creek
JA41	020802070901	Swift Creek-Swift Creek Reservoir
JA42	020802070902	Swift Creek-Third Branch
JA43	020802070903	Licking Creek-Second Branch
JA44	020802070904	Swift Creek-Franks Branch
JA45	020802071002	Appomattox River-Ashton Creek
JL01	020802060101	James River-Almond Creek
JL02	020802060102	Falling Creek
JL03	020802060103	James River-Proctors Creek
JL06	020802060106	James River-Curles Creek
JL07	020802060201	James River-Bailey Creek
JM83	020802050604	James River-Bernards Creek
JM85	020802050606	James River-East Branch Tuckahoe Creek
JM86	020802050607	James River-Little Westham Creek

Basin:	James River	Tidal:	Yes
Subbasin(s):	Lower, Middle, Appomattox	7-Day/10-Year Low Flow:	N/A
Sections:	1o, 1p, 4a, 5, 5a, 5b, 6, 8, 9	1-Day/10-Year Low Flow:	N/A
Class:	II, III	30-Day/5-Year Low Flow:	N/A
Special Standards:	PWS, bb, n	Harmonic Mean Flow:	N/A

6. **OPERATOR LICENSE REQUIREMENTS:** A licensed operator is not required because there is no treatment facility.

7. **RELIABILITY CLASS:** This requirement is not applicable to this facility.

8. **PERMIT CHARACTERIZATION:**

☐ Issuance

☒ **Reissuance**

☐ Revoke & Reissue

☐ Owner Modification

☐ Board Modification

☐ Change of Ownership/Name

(Effective Date: _____)

☒ **Municipal**

SIC Code(s): 9199, 9999

☐ Industrial

SIC Code(s): _____

☐ POTW

☐ PVOTW

☐ Private

☐ Federal

☐ State

☐ Publicly-Owned Industrial

☒ **Existing Discharge**

☐ Proposed Discharge

☐ Effluent Limited

☐ Water Quality Limited

☐ WET Limit

☐ Interim Limits in Permit

☐ Interim Limits in Other Document

☐ Compliance Schedule Required

☐ Site Specific WQ Criteria

☐ Variance to WQ Standards

☐ Water Effects Ratio

☒ **Discharge to 303(d) Listed Segment(s)**

☐ Toxics Management Program Required

☐ Toxics Reduction Evaluation

☒ **Stormwater Management Plan**

☐ Pretreatment Program Required

☐ Possible Interstate Effects

9. **FACILITY DESCRIPTION & ACTIVITIES SUBJECT TO THIS PERMIT:** The permit authorizes point source discharges of stormwater runoff and certain non-stormwater discharges from the MS4 operated or owned by Chesterfield County. An MS4 is a conveyance or system of conveyances owned and/or operated by a public entity, which is designed or used to collect or convey stormwater runoff and is not part of a combined sewer system or publicly owned treatment works. This can include streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains that convey stormwater and ultimately discharge to receiving waters. The MS4 permit regulates the discharge from the municipally owned or operated storm sewer system and not the municipality itself.

The MS4 outfalls addressed in this permit may discharge to tributaries of these water bodies and do not drain the entire HUC acreage. The authorized discharges covered by this permit include discharges from all County MS4 outfalls including existing outfalls as well as any new outfalls constructed during the term of this permit. All discharges covered under this permit eventually drain into the James River, Appomattox River and Chesapeake Bay model segmentsheds- APPTF, JMSTF1, and JMSTF2. The acreages identified in the Chesapeake Bay model segmentsheds do not represent the acreages regulated under this permit; instead, it represents the approximate total acreage in the jurisdiction.

This permit does not and is not intended to cover all stormwater discharges within the jurisdictional boundaries of the County. This permit covers solely discharges from municipal stormwater outfalls owned and/or operated by the permittee. Drainage from acreage that discharges into the MS4 is considered regulated acreage under this permit. Drainage from acreage that discharges to surface

waters through outfalls not owned and/or operated by the permittee are not considered part of the Chesterfield County MS4; and thus are not regulated under this permit.

The permittee's MS4 may be physically interconnected to the following small MS4s Phase II MS4s that are covered under the General Permit for the Discharge of Stormwater from Small MS4s:

- Virginia Department of Transportation (VAR040115)
- Virginia State University (VAR040119)
- John Tyler Community College (VAR040110)
- Defense Supply Center Richmond (VAR040001)
- City of Colonial Heights (VAR040009)
- City of Petersburg (VAR040013)
- City of Richmond (VAR040005)

10. **SEWAGE SLUDGE USE OR DISPOSAL:** Not applicable to stormwater permits.

11. **DISCHARGE(S) LOCATION DESCRIPTION:** Various stream, rivers, and tributaries of the James and Appomattox Rivers. See Attachment 1 for Chesterfield County map.

12. **MATERIAL STORED:** Materials are stored throughout the jurisdiction but are stored in containment areas or rooms or by other such means that prevent stored materials from reaching state waters if a spill were to occur.

13. **STATUTORY OR REGULATORY BASIS FOR PERMIT**

- ☒ Virginia Stormwater Management Act (§62.1-44.15:24 et seq.)
- ☒ State Water Control Law Act (§62.1 et seq.)
- ☒ Clean Water Act (33 U.S.C. §1251 et seq.)
- ☒ Virginia Erosion and Sediment Control Law (§ 62.1-44.15:51 et seq.)
- ☒ Chesapeake Bay Preservation Act (§ 62.1-44.15:67 et seq.)
- ☒ VSMP Permit Regulation (9VAC 25-870 et seq.)
- ☒ EPA NPDES Regulation (40 CFR Part 122)
- ☒ EPA Effluent Guidelines (40 CR 133 or 400-471)
- ☒ Water Quality Standards (9VAC 25-260 et. seq.)
- ☒ Wasteload Allocation from TMDL or River Basin Plan

The United States Environmental Protection Agency (EPA) delegated the authority to implement Section 402 of the CWA to the Commonwealth of Virginia on March 31, 1975. The MS4 and construction stormwater permitting portions of Section 402 implementation were transferred to the Soil and Water Conservation Board and the DCR on January 29, 2005. The program was subsequently transferred to DEQ on July 1, 2013. The conditions of this permit are established in a manner consistent with the CWA and under the laws and regulations of the Commonwealth of Virginia.

Section 62.1-44.15:25 of the Virginia Stormwater Management Act authorizes the Department to issue, deny, amend, revoke, terminate, and enforce permits for the control of stormwater discharges from MS4s. It further directs the Department to "act to ensure the general health, safety and welfare of the citizens of the Commonwealth as well as protect the quality and quantity of state waters from the potential harm of unmanaged stormwater." Section 9VAC25-870-310 of the VSMP regulations requires the development and issuance of permits that include appropriate conditions. The Department applies its authority to establish appropriate permit conditions that further advance the Permittee's MS4 program in a manner consistent with the CWA and the Act.

14. **ANTIDEGRADATION:** The State Water Control Board's Water Quality Standards includes an antidegradation policy (9VAC25-260-30). All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The antidegradation review begins with a Tier determination. Receiving streams throughout Chesterfield County are determined to be Tier 1 or 2 waterbodies. Compliance with the terms of this permit and reduction of pollutants to the maximum extent practicable is not expected to cause degradation of receiving streams to which the MS4 discharges.

15. **SITE INSPECTION DATE:** April 23, 2010 **REPORT DATE:** November 2010
PERFORMED BY: EPA (See Attachment 2)

16. **EFFLUENT LIMITATIONS/MONITORING & RATIONALE:**

Section 402(p)(3)(B) of the CWA establishes the statutory permitting requirements for discharges from municipal separate storm sewer system as the following:

- (i) may be issued on a system- or jurisdiction-wide basis;
- (ii) shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers; and
- (iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.

This permit addresses each of the three statutory requirements established under the CWA in the following manners:

- (i) Authorization to discharge under this permit is being given to the Permittee for all discharges from its MS4. Therefore, this permit is being issued on a system-wide basis. Other MS4s located within the county boundaries are required to obtain separate authorization to discharge stormwater.
- (ii) The authorization to discharge includes specific reference to authorized discharges and prohibits non-stormwater discharges and other CWA-regulated stormwater discharges into the MS4 unless separate authorization has been obtained by the discharger.
- (iii) This permit requires controls to reduce the pollutants to the maximum extent practicable, including management practices, control techniques and system design and engineering methods, and includes other provisions as the Administrator or the State determines appropriate for the control of such pollutants.

In 1999, the Ninth District Court of Appeals determined that MS4 permits need not require strict compliance with water quality standards; rather, compliance was to be based upon the maximum extent practicable standard established in the CWA. The court further ruled that the permitting authority could, at its discretion, require compliance with water quality standards. *Defenders of Wildlife vs. Browne* 191 F.3d 1159 (9th Cir. 1999).

EPA Region III sent a letter dated June 26, 2006 to the Commonwealth detailing EPA's expectation that MS4 discharges protect the water quality and to satisfy the appropriate water quality requirements of the CWA. This letter stated:

"[T]oday's rule specifies that the 'compliance target' for the design and implementation of municipal storm water control programs is 'to reduce pollutants to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the CWA. The first component, reductions to the MEP, would be realized through implementation of the six minimum measures. The second component, to protect water quality, reflects the overall design objective for municipal programs based on CWA section 402(p)(6). The third component, to implement other applicable water quality requirements of the CWA, recognizes the Agency's specific determination under CWA section 402(p) (3) (B) (iii) of the need to achieve reasonable further progress toward attainment of water quality standards according to the iterative [Best Management Practices] process, as well as the determination that State or EPA officials who establish TMDLs could allocate waste loads to MS4s, as they would to other point sources.'" 64 F.R. 68722, 68753-54 (emphases added).

Although this language is included in the Preamble to the Phase II Rule, it applies to medium and large MS4s as well [Id. At 68754]. As a result, it is clear that EPA intends all municipal dischargers to achieve both technology-based and water quality-based limits. Because WQS are generally more stringent than technology-based standards, the former will generally serve as the minimum floor for discharges. Therefore, the plain statutory language coupled with EPA's own background document on the Phase II Storm Water Rule require that Phase I MS4 permittees comply with both WQS and the MEP Standard, so that discharges must achieve the more stringent limitation.

This permit clearly defines the expectations of the permittee in meeting each of the components discussed above. The first component, reductions to pollutants to the maximum extent practicable, will be realized through implementation of the iterative MS4 Program, as defined in the permit. The second component, to protect water quality, reflects the overall design objective of the MS4 Program established by the permit. The third component, to implement other applicable water quality requirements of the CWA is met by the requirement to address TMDL wasteload allocations through the development and implementation of TMDL Action Plans for pollutants of concern identified in approved TMDLs.

The Department has determined that the most economically and environmentally feasible method for MS4s to meet the requirements established by this permit is through the implementation of BMPs using an iterative process over a series of permit cycles. MS4 BMPs may consist of structural stormwater controls as well as ordinances, policies, procedures, planning and other programmatic efforts aimed at reducing pollutant loads that are designed with the ultimate compliance goal of meeting the requirements established by this permit.

Section 9VAC 25-870-460 provides for the use of BMPs to control or abate the discharge of pollutants when numeric effluent limitations are infeasible. The Department finds that at this time numeric effluent limits are infeasible given current technologies and legal authority limitations. The determination of the appropriateness for establishing BMPs as permit conditions in lieu of numeric effluent limits is consistent with the Clean Water Act. § 40 CFR 122.44 (k) of the Code of Federal Regulations provides for the use of BMPs to control or abate the discharge of pollutants when numeric effluent limitations are infeasible or when authorized under section 402(p) of the Clean Water Act for the control of stormwater discharges.

In selecting the BMP approach, the Department utilized the recommendations found in EPA's guidance document *Interim Permitting Approach for Water Quality-Based Effluent Limitations in Stormwater Permits* (EPA833-D-96-001 September 1996) to develop a permit that requires the iterative implementation of BMPs. The iterative process allows the permittee the flexibility to select, implement, evaluate and modify its scheme of BMPs to insure implementation of the most effective BMPs in reducing the discharge of pollutants.

This permit establishes conditions that refine the implementation of the permittee's long-term MS4 program in an iterative manner that represents reasonable further progress consistent with the water quality requirements established under the CWA. Conditions in this permit are generally in the form of comprehensive programs implemented on a system-wide basis to control sources of pollution rather than targeted treatment methods. At a local level, these types of programs consist of various components, including pollution prevention measures, management or removal techniques, stormwater monitoring, use of legal authority, and other appropriate means necessary to control the quality and quantity of stormwater discharged from the MS4.

In some instances, it may be appropriate for the permittee to consider and implement engineered permanent structural stormwater management facilities. However, the large number of MS4 outfall locations, the unavailability of land in highly developed areas and intermittent and varied discharge conditions, do not allow for the efficient use of large scale design or for the use of 'end of pipe treatment'. Therefore, conditions in this permit stress the use of a source reduction and pollution prevention approaches for the reduction of pollutants in stormwater discharges. This approach is supported on the basis that the quality of stormwater discharge from the MS4 is dependent on the sources of pollutants that contribute to the system through runoff. Minimizing pollutant sources reduces the pollutant loading in MS4 discharges.

Under this permit, the permittee is required to develop TMDL Action Plans no later than 24-months after the effective date of the permit for all TMDLs in which a wasteload was allocated to the discharger for a pollutant of concern. See Attachment 3 of this fact sheet for a list of approved TMDLs for water bodies located in Chesterfield County. In addition, the permit may also be modified or revoked and reissued if any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the treatment works that are not consistent with the permit requirements.

17. **ANTI-BACKSLIDING STATEMENT:** All limitations are the same or more stringent than limitations in the previous permit.
18. **COMPLIANCE SCHEDULES:** None
19. **SPECIAL CONDITIONS RATIONALE:**

Part I.A.1 Authorized Discharges - 9VAC 25-870-10 and 9VAC 25-870-380 C.2(d)(2)(a)

The permit authorizes the discharge of stormwater runoff from the permittee's MS4 in accordance with the conditions established by this permit. MS4 discharges are to be composed only of stormwater runoff resulting from precipitation or snowmelt. Some incidental non-stormwater discharges are authorized provided these discharges have been determined not to be significant sources of pollutants by the permittee, the Virginia State Water Control Board, or the Soil and Water Conservation Board.

This permit also allows for non-stormwater discharges through the MS4 when those discharges are covered by a separate Virginia Pollutant Discharge Elimination System (VPDES) permit issued by DEQ or where DEQ has determined that a discharge is not a significant source of pollutants and that a VPDES permit is not required. The permittee may require additional BMPs or stormwater management activities VPDES permitted facilities when those facilities discharge to its MS4 provided the permittee utilizes its delegated legal authorities.

This permit also allows the discharges of stormwater from regulated industrial activities, as defined at 9VAC 25-31-10, through the MS4 provided authorization is obtained from DEQ by the industrial activity operator through a separate VPDES permit action. Similarly, this permit allows for discharges of stormwater from construction activities regulated under the VSMP permitting regulations provided authorization is obtained by the construction activity owner or operator through a separate VSMP permit action from the appropriate VSMP permitting authority. Discharges resulting from spills into the MS4 are not authorized by this permit unless the

discharge of material resulting from a spill to the MS4 is necessary to prevent loss of life, personal injury, or severe property damage. This permit does not transfer liability for a spill itself from the party(ies) responsible for the spill to the permittee nor relieve the party(ies) responsible for a spill from liability.

This permit does not regulate discharge categories that are excluded from obtaining permit coverage at 9VAC 25-870-300 and from federal Clean Water Act (CWA) regulation. Any discharges of pollutant and/or acreage associated with excluded discharge categories is considered unregulated by this permit whether it discharges through the MS4 or directly to State waters.

Part I.A.2 Permittee Responsibilities - 9VAC 25-870-380 C.2.d

This permit requires that the permittee clearly define the roles and responsibilities of each of its departments to ensure compliance with the requirements of this permit. By defining who is responsible for which conditions of the permit, management of the overall program is streamlined and staff is made aware of their responsibilities.

Part I.A.3. Legal Authority - 9VAC 25-870-380 C.2.a

Adequate legal authority is required for the permittee to implement and enforce the stormwater management plan. It should be noted that Virginia considers counties as “arms” or instruments of the State. Under the Dillon Rule, the Department cannot issue a permit that gives authorities to political subdivisions that have not been conferred to them either expressly, or by necessary implication, by Code. “In determining the validity of a local government’s exercise of legislative authority, Virginia follows the Dillon Rule of strict construction that provides ‘municipal corporations have only those powers expressly granted, those necessarily or fairly implied from expressly granted powers, and those that are essential and indispensable’ and its corollary that ‘[t]he powers of county boards of supervisors are fixed by statute and are limited to those powers conferred expressly or by necessary implication.’ Therefore, to have the power to act in a certain area, local governments must have express enabling legislation or authority that is necessarily implied from enabling legislation.” Opinion of the Attorney General to the Hon. Richard P. Bell, 2010 Va. AG S-32 (10-045) [citations omitted].

Part I.A.4 MS4 Program Resources - 9VAC 25-870-380 C.1.f

An annual fiscal analysis is necessary to show that the permittee has adequate resources to meet all permit requirements.

Changes from the previous permit. The 2003 permit stipulated that the permittee provide adequate resources to implement the activities under the Stormwater Management Program *to the maximum extent practicable*. This phrasing has been removed. The reasons for this modification are:

- 1) The term ‘maximum extent practicable’ or MEP has a specific meaning in MS4 statutory language. MEP is the statutory compliance effort required to meet the CWA for the reduction of pollutants and should not be applied to any funding requirements.
- 2) The permit is the tool used under the CWA to establish conditions that the permittee must meet. Compliance is determined based on the permit. Thus, it is more appropriate to require that the permittee provide adequate funding to meet the conditions of the permit.

Part I.A.5 Permit Maintenance Fees - 9VAC 25-870-700 et.seq.

The permittee is required to pay permit fees in accordance with VSMP fee regulations.

Part I.A.6 MS4 Program Plan - 9VAC 25-870-380 C.1.e

The permittee is required to develop a Stormwater Management Plan (SWMP) document that describes how the permittee will meet the control requirements in the permit which include components to address stormwater management through existing structural and source controls, new and significant redevelopment, roadways, retrofitting, pesticide, herbicide and fertilizer applications, illicit discharges and illegal disposal, spill prevention and response, industrial and high risk runoff, construction site runoff, storm sewer infrastructure management, county facilities, public education, training, water quality screening, TMDL action plans and a Chesapeake Bay TMDL action plan. The SWMP document is a consolidation of all of the permittee's relevant ordinances or other regulatory requirements, the description of all programs and procedures (including standard forms to be used for reports and inspections) that will be implemented and enforced to comply with this permit and to document the selection, design, and installation of all stormwater control measures. The permittee is required to submit its SWMP document to the permitting authority. If modifications to the SWMP are necessary then the permitting authority will notify the permittee.

Part I.A.7 MS4 Program Review and Updates - 9VAC 25-870-380 C.1.e

The permittee is required to review and update the MS4 Program Plan required in Part I.A.6 as necessary. This condition establishes the annual report as the mechanism for maintaining an updated MS4 Program Plan as well as procedural requirements for plan modifications. The expectation established by this permit is that any person could review the most recent annual report and gain thorough understanding of the permittee's program. The first annual report is to be updated to include the items necessary to demonstrate compliance with this permit and must be made available for public review no later than 30-days after submittal to the Department.

Updates to the MS4 Program Plan made to comply with this state permit that are more stringent than current program requirements are allowed and should be submitted with the first annual report or as specified in the permit. The permittee may submit program updates for review and approval at any time during the term of this permit.

Part I.B – Stormwater Management

Part I.B.1 Planning - 9VAC 25-870-380 C.2.d

The permittee is required to submit a Storm Water Capital Improvement Plan of conceptual stormwater pollutant reduction projects for consideration. The analyses will include the number of acres treated by the BMPs, impervious area draining into BMPs, condition of the downstream channel, amount of pollutant reduction, feasibility for implementation, the unit costs for pollutant reduction and other benefits from the proposed BMP. Additionally, for each project proposed for implementation, the permittee shall describe how the project will improve stormwater management and pollutant reduction from the MS4 system to the receiving water. The analysis will include a prioritized list of the identified conceptual projects for consideration of implementation.

Part I.B.2.a) Construction Site Runoff and Post Construction Runoff from Areas of New Development and Development on Previously Developed Lands - 9VAC 25-870-380 C.2.d

This permit condition addresses construction site runoff control and post development stormwater control which are two of the six minimum control measures. Construction site runoff management is required in the federal effluent limitation guidelines for the Construction and Development Point Source Category 40 CFR 450. Stormwater discharges from construction sites generally include sediment and other pollutants such as phosphorus and nitrogen, turbidity, pesticides, petroleum derivatives, construction chemicals, and solid wastes that may become mobilized when land surfaces are disturbed. This permit requires that the permittee continue to operate a local erosion and sediment control program that is consistent with the Virginia Erosion and Sediment Control Law and attendant regulations as the minimum standard. While not explicitly stated in the permit,

the permittee is required to comply with the reduced regulatory size threshold for land disturbing activity under the Chesapeake Bay Preservation Act.

This permit also requires that the permittee continue to operate stormwater control program that is consistent with the Virginia Stormwater Management Act and Virginia Stormwater Management Program (VSMP) attendant regulations as the minimum standard. The VSMP regulations require that an MS4 develop and implement a program to address post-construction discharges from new development and redeveloped sites, and ensure the long-term operation and maintenance of these controls. This permit continues to implement the Commonwealth's iterative strategy to address the impacts of stormwater runoff from urbanization.

This permit requires the permittee to consistently implement the 2014 VSMP stormwater regulations. In order to coordinate implementation efforts between MS4 localities and the Commonwealth, the regulation designates a start date consistent with reissuance of the CGP, effective July 1, 2014. Under this permit, the permittee is required to update its ordinances and procedures to be consistent with the regulations and submit them to DEQ for review and approval. DEQ approved the permittee as a VSMP authority on July 1, 2014.

Part I.B.2.b) Retrofitting on Prior Developed Lands - 9VAC 25-870-380 C.2.d(1)(d)

The permittee is required to implement five (5) retrofit projects prior to the expiration of the permit. The number of retrofit projects required in this permit is based on review of the permittee's watershed plans and CIP. Retrofit requirements may be fulfilled by projects initiated in response to the Chesapeake Bay and local TMDL action plan conditions in Part I.D of the permit including stream restoration projects. Permittees are required to submit the action plans to the Department for review and approval. Therefore, the retrofit projects will be reviewed and approved through the TMDL action plan review and approval process. With each annual report, the permittee will provide a status update of the selected projects. For each project, the permittee will track the number of retrofit projects, type of land use being retrofitted, total acreage retrofitted and retrofit type by the watershed identified in the retrofit study and location so that it is possible to calculate the pollutant reductions associated with the project.

Implementation of projects included in the TMDL action plans meet the Clean Water Act requirement that MS4 permittees reduce pollutants to the maximum extent practicable (MEP). Traditionally, MS4 permit conditions requiring BMP implementation served to satisfy technology requirements of reducing pollutants to the MEP and to protect water quality. However, in this permit reissuance, the permittee is required to submit an action plan that demonstrates calculated reductions of nutrients and sediment to meet the Chesapeake Bay TMDL wasteload allocations. Permittees must also submit action plans that address assigned wasteload allocations in local TMDLs. TMDL wasteload allocations are water-quality based and load reductions requirements to meet these wasteload allocations are more stringent than the technology based MEP requirement.

Part I.B.2.c) Roadways - 9VAC 25-870-380 C.2.d(1)(c)

The Virginia Department of Transportation maintains 99% of the roadways and right of way areas in the county. The permit requires any roadways that are maintained by the permittee to be maintained in a manner to minimize discharge of pollutants. The permittee will develop a list of roadways, streets, and parking lots maintained by the county. The list will include the number of miles of roadway treated by BMPs and miles of roadway not treated by BMPs. In addition, the permittee will develop a protocol to minimize pollutant discharge from maintenance activities, equipment storage, and material storage. The permit requires that all deicing and sanding materials remain covered and protected from precipitation until applied.

The permit also complies with state statute by restricting the use of materials containing nutrients as deicing agents.

See Part I.B.2.m) for coordination requirements between the permittee and VDOT.

Part I.B.2.d) Pesticides, Herbicides and Fertilizers - 9VAC 25-870-380 C.2.d(1)(f)

This permit establishes a development schedule so that by the permit expiration date, turf and landscape nutrient management plans will be implemented on all permittee owned and operated lands where nutrients are placed on more than one-acre of contiguous land. Nutrient management plans are designed to insure that the appropriate amounts of nutrients are applied to maintain a healthy vegetative cover that is necessary both for the filtration and infiltration of stormwater runoff. A general 5% reduction in baseline application is a simplistic approach that does not address the needs of the vegetation nor represents a sound scientific approach. Virginia regulation, 4VAC5-15-10 defines a "nutrient management plan" as a plan "prepared by a Virginia certified nutrient management planner to manage the amount, placement, timing, and application of manure, fertilizer, biosolids, or other materials containing plant nutrients in order to reduce nutrient loss to the environment and to produce crops." DCR has a Turf and Landscape Nutrient Management Planning category in its nutrient management program. These requirements are expected to be followed by the certified nutrient management planner. Additional information regarding turf and landscape nutrient management plans can be found at http://www.dcr.virginia.gov/stormwater_management/nmplnr.shtml#forturf.

The permit also authorizes regulation of fertilizers in accordance with authorizing State statute if the permittee determines that such a source control is necessary to prevent any further degradation to water resources, to address TMDL requirements, to protect exceptional state waters, or to address specific existing water pollution and are regulated in accordance with § 62.1-44.15:33.

Part I.B.2.e) Illicit Discharges and Improper Disposal - 9VAC 25-870-380 C.2.d(2) and (g)

The sanitary sewer system is maintained and operated by the permittee under the Chesterfield County Department of Public Utilities. The permit requires that the permittee continue to identify illicit discharges and improper disposal including inspection of sanitary sewer. The permittee inspects on average 100,000 linear feet of sanitary sewer annually. Over the course of the 5 year permit term this is approximately 500,000 linear feet. DEQ determined that a more appropriate value of 375,000 linear feet should be included in the permit. This is 75% of the 5 year average performed by the permittee allows for unpredictable problems with equipment, etc. This aligns the minimum requirement more closely with the program that the permittee implements while creating an enforceable numeric standard. This permit also defines non-sediment discharges at construction site activities as illicit discharges under this permit and requires implementation of appropriate pollution controls. The permittee is required ensure that programs are available to citizens for the proper disposal of materials such as used motor oil. These programs can be run by a third party; however the permittee is responsible for ensuring that they are available and publicizing them to citizens.

Part I.B.2.f) Spill Prevention and Response - 9VAC 25-870-380 C.2.d(2)(d)

The permit requires the permittee to continue implementation of a program with the County fire department and other county staff to prevent spills and when unpreventable, provide the proper response.

Part I.B.2.g) Industrial and High Risk Runoff - 9VAC 25-870-380 C.2.d(3)

This permit places emphasis on the visual inspection of industrial and high risk outfalls at their discharge into the MS4 as a means of identifying potential sources of pollutants. These requirements are in conjunction with the Commonwealth's VPDES permitting program and requires the permittee to work in coordination with the appropriate Department.

The permittee prioritizes facilities for inspection by rating them on a scale of 1 to 5, with 1 being a facility with little or no chance of an illicit discharge such as office complexes; and 5 being a high

risk facility because of a combination of, handling hazardous materials, collecting waste for treatment, disposal or recovery, having a NPDES/VPDES permit, SARA Title III facilities, facilities that have had releases in the past or any combination of the aforementioned criteria.

Part I.B.2.h) Storm Sewer Infrastructure Management - 9VAC 25-870-380 C.2.d(4)

The permittee does not maintain all of the stormwater management facilities discharging to the permittee's MS4. In these circumstances, maintenance agreements between the permittee and the responsible party are used to establish that the infrastructure is properly maintained. The permittee is responsible for establishing inspection and follow-up protocols and annual inspecting a portion those infrastructures to ensure that they are being properly maintained.

In order to ensure maintenance of the storm sewer infrastructure, the permittee is required to annually inspect 20% of the total storm system such that the entire system is inspected by the end of the permit term. Additionally, for those SWM facilities that are privately maintained and for which a maintenance agreement has been established, the permittee must inspect those facilities at least once during the term of the permit.

Additionally, the permittee must map the MS4 service area and associated MS4 outfalls within 18 months of the permit effective date. The permittee must also identify impervious and pervious acres served for each local watershed.

Part I.B.2.i) County Facilities - 9VAC 25-870-380C.2.d

This is one of the six minimum control measures. This permit contains a new section that addresses discharges specifically from County facilities. This section pertains specifically to those facilities owned and operated by the county. The conditions established in this permit require the utilization of good housekeeping practices, the discharge prohibition of vehicle wash water, wastewater, purposeful dumping of yard waste and grass clippings and the application for separate permit coverage for all facilities regulated under the VPDES industrial stormwater program.

This permit also requires the development and implementation of individual stormwater pollution prevention plans for any high-priority county facilities as well as stormwater inlet marking at high-priority municipal facilities with greater than two-acres of impervious surface for potential retrofit opportunities.

Part I.B.2.j) Public Education/Participation - 9VAC 25-870-380 C.2.d(2)(e) and (f)

This is one of the six minimum control measures. The permittee is required to establish and implement a program to educate the public of the impacts of stormwater on water quality and how stormwater pollution can be mitigated.

This permit places additional emphasis not included in the 2003 permit on public education and outreach that will enhance the permittee's existing programs. This permit also encourages transparency of the permittee's efforts by requiring that the permit, annual reports and the most current MS4 Program Plan be made available for public review.

Additionally, the permittee is evaluating the implementation of program to implement an outreach program to private golf courses on techniques and use of fertilizers and pesticides.

Part I.B.2.k) Training - 9VAC 25-870-380 C.2.d(4)

This permit requires the permittee to provide training to county staff in stormwater pollution prevention practices and identification of unauthorized discharges. The permittee will continue implementation of training employees to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and

land disturbances, and stormwater system maintenance. This permit requires employee training for existing and new employees who are involved in performing pollution prevention and good housekeeping practices. All training must include a general stormwater educational component, including an overview of the requirements with which the municipality needs to comply. The permittee is responsible for identifying which staff must attend trainings based on the applicability of the topics listed, and they are required to conduct refresher training.

Additionally, as part of their stormwater management plan, in 2010 the permittee implemented a program to train county building inspectors in proper erosion and sediment control practices and inspections. The additional inspectors were required to ensure timely Erosion and Sediment control inspections in order to maintain compliance with the standard inspection timeframe for single-family building permits.

Part I.B.2.l) Water Quality Screening Programs - 9VAC 25-870-380 C.2.d(2)(b) and (c)

The permit requires dry and wet weather monitoring of the MS4 system. The focus of dry weather screening is to identify illicit connections and unauthorized discharges to the MS4. The permit prescribes specific criteria for identifying locations for dry weather screening. The permit requires the permittee to screen no less than 500 of the total outfalls in its jurisdiction during the term of the permit.

Additionally, the permittee will establish wet weather screening protocols to be incorporated into the MS4 Program Plan.

Part I.B.m) VDOT Coordination

The Chesterfield County MS4 is interconnected with Virginia Department of Transportation MS4. In order to effectively implement the MS4 Program, owners and/or operators of interconnected MS4s must communicate program requirements and keep one another informed of the implementation of the MS4 programs. The permit requires that the permittee coordinate with VDOT to identify and quantify any lands that are (1) within the County borders, (2) part of the VDOT service area and discharge to the VDOT MS4, and (3) not addressed in either the permittee's or VDOT's Chesapeake Bay TMDL Action Plan; however, this does not include lands that discharge to other MS4s (e.g, locality, state or federal) within the borders of Fairfax County. Quantification of these lands is to be reported to DEQ when the Chesapeake Bay TMDL Action Plan is submitted. Additionally, the special condition establishes that credit for reductions resulting from new BMPs or BMP retrofits shall not be double counted by VDOT and the permittee. Credit is provided to the permittee who undertakes the project. Credit may be shared by the permittee and VDOT if a written agreement is provided.

Part I.C – Monitoring Requirements - 9VAC 25-870-380 C.2.c.(4)

The permittee is required to perform in-stream monitoring for those conventional, nutrient, and bacterial parameters listed in the permit in addition to the dry and wet weather screening. The monitoring plans need to include at least one location as a baseline for data evaluation or identify some other method in the monitoring plan by which the data can be evaluated to demonstrate upstream BMP effectiveness. The permittee may re-designate monitoring locations for bacterial and ambient monitoring after collection of sufficient data for analysis and notification to the Department.

This permit requires the review and implementation of a floatable monitoring to document the effectiveness of litter control programs.

This permit requires maintenance of stormwater management facility tracking data and the monitoring of private stormwater management facilities maintenance. This monitoring program is

designed to ensure that maintenance is being conducted on privately owned stormwater management facilities.

Part I.D – TMDL Action Plan and Implementation

Part I.D.1 Chesapeake Bay TMDL Action Plan – 9VAC 25-870-460:

Pollutant of Concern Loadings from Existing Sources

This permit requires the permittee to reduce the loadings of nutrients and sediment from existing sources (pervious and impervious regulated urban lands developed prior to July 1, 2009) equivalent to Level 2 (L2) scoping run reductions simulated in the Chesapeake Bay Watershed Model. Level 2 implementation equates to an average reduction of 9% of nitrogen loads, 16% of phosphorus loads, and 20% of sediment loads from impervious regulated acres and 6% of nitrogen loads, 7.25% of phosphorus loads and 8.75% sediment loads from pervious regulated acres beyond 2009 progress loads and beyond urban nutrient management reductions for pervious regulated acreage. Calculations are based on an average tributary loading rate

In the Phase I and II WIPs and the Chesapeake Bay TMDL, the Commonwealth and EPA committed to using a phased approach for the MS4 sector affording MS4 permittees three full five year permit cycles to implement necessary reductions as follows:

- 5% of L2 achieved by the end of the first permit term;
- 35% of the necessary reductions in the second permit term (totaling at least 40% of the necessary reductions no later than the end of the second permit term); and
- 60% of the necessary reductions from the third permit term (totaling 100% of the necessary reductions no later than the end of the third permit term).

Due to multiple delays in permit reissuance, three full permit terms now extends beyond the Chesapeake Bay Program partnership's 2025 goal for implementation of all controls necessary to meet the TMDL. Under the Phase I and II WIPs, Virginia has recognized the right to adjust this plan and take different approaches to meet the 2025 goal. Virginia is committed to a phased approach that allows multiple permit terms for MS4 permittees to fully implement nutrient and sediment reductions necessary to meet the Chesapeake Bay TMDL wasteload allocations. Virginia will adjust its commitments, if necessary, as part of its Phase III WIP to ensure that practices are in place by 2025 that are necessary to meet water quality standards in the Chesapeake Bay and its tidal tributaries.

The permittee shall also review its authorities and adopt and modify the necessary ordinances as well as develop its resources in order to implement the necessary reductions, e.g., develop design protocols, operation and maintenance programs, site plan review criteria, inspection standards, and tracking systems during this first permit cycle.

The permittee is required by this permit to identify the acreages for both the pervious and impervious urban land uses as June 30, 2009. This will allow the permittee to calculate the existing source loads discharged as of 2009 using Table 1 by multiplying the existing acreage by the Edge of Stream loading rates. Using Table 2, the permittee will calculate the total load reductions required to meet 5% reductions during this term of the permit by multiplying the existing acreage by the reduced load rates.

The permittee is allowed to adjust the levels of reduction between pervious and impervious land uses within their service area and Chesapeake Bay segment level, provided the total pollutant load reduction is met. For example, the permittee could implement a 5% nitrogen load reduction on impervious land uses by implementing a reduction strategy sufficiently greater than 6% nitrogen load reduction on pervious land uses provided the total loads from both land uses are met.

Compliance with reduction in loading rate will be measured based on the total reductions required as determined by calculations defined by Tables 1 and 2 in the permit and the reported implementation of BMPs. Additionally, the permittee should use the Watershed Model Phase 5.3.2, or some other tool or methodology that is approved by the department as consistent with the assumptions of the Bay TMDL in order to demonstrate compliance with the reductions. Part I.D.1.b)1)(f) states “means and methods implemented prior to July 1, 2009 shall not be credited towards meeting the required reductions.” However, this prohibition only requires if the means and methods (i.e. pre-2009 BMP) was previously reported to the Chesapeake Bay Program.

Finally, since 9VAC 25-870-610 provides legal authority for the Department to open, modify and reissue this permit, this permit includes language providing notification that it may be opened and modified. DEQ will consider recommending to the Department reopening the permit upon request when an applicable TMDL has been adopted by the State Water Control Board.

This permit is designed to strengthen the permittee’s MS4 program in order to protect all surface waters. As a result, by implementing the main body of the permit, the permittee will provide increased protection to the Chesapeake Bay in a manner consistent with Virginia’s Phase I and II Watershed Implementation Plan (WIP) commitments accepted by EPA.

Control of Transitional Loads and Accounting for Growth from New Development

The permit requires reductions from increased loads from new sources as well as sources grandfathered under the VSMP regulation. Additionally, new sources as of July 1, 2014 are required to meet post development criteria of 0.41 pounds per acre per year of total phosphorus which has been determined by the Department to be nutrient neutral.

Additional Protections Provided the Chesapeake Bay by this Permit

This permit requires that the permittee continue to identify and eliminate illicit discharges and illegal dumping. The elimination of these illicit discharges reduces the amount of sediment and nutrients discharged through the MS4. For example, using concentrations for the typical pollutant concentrations in untreated medium strength domestic wastewater, published in Wastewater Engineering Treatment and Reuse, Fourth Edition, the elimination of sanitary inflow into the MS4 will remove an estimated 6 lbs. of total suspended solids, 0.33 lbs. of total nitrogen and 0.06 lbs. of total phosphorus per 1,000 gallons of domestic wastewater from entry into the MS4. This permit does not regulate discharges from sanitary sewer treatment plants or their associated infrastructure or discharges from septic systems. Failed and failing sewer lines and septic tanks will be regulated under the appropriate Code and regulations. The permittee will continue to identify these discharges and report them to the appropriate regulatory authorities.

This permit requires continued implementation street sweeping and stormwater infrastructure maintenance. If the permittee chooses to utilize street sweeping and other infrastructure maintenance as a mechanism for reduction, it will need to describe this effort in its Chesapeake Bay Action Plan.

Part I.D.2 TMDL Action Plans Other than the Chesapeake Bay TMDL– 9VAC 25-870-460

The 2003 permit does not address TMDLs. This permit requires that the permittee develop TMDL Action Plans for watersheds within 24-months of permit issuance where a wasteload for a pollutant of concern has been allocated to the permit at the time of permit issuance. TMDL Action Plans may be implemented in multiple phases over more than one permit cycle using the adaptive iterative approach provided adequate progress is made to reduce pollutant discharges in a manner that is consistent with the assumptions and requirements of the applicable TMDL wasteload allocations. Progress will be demonstrated by representative and adequate monitoring or other methods (e.g. modeling). Demonstration of compliance with the TMDL WLA assumes that the permittee is not causing or contributing to violations of the water quality standards.

This permit establishes and Action Plan development schedule and requires:

- 1) Defined content be included in the Action Plan;
- 2) Public participation and comment during development of the Action Plan;
- 3) Implementation of the Action Plan; and,
- 4) Evaluation of the Action Plan

For TMDL Action Plans other than the Chesapeake Bay Action Plan, adequate progress is measured during this permit cycle as development and implementation of the TMDL Action Plans. This is in contrast to the requirements of the Chesapeake Bay Action Plan for which permit requirements for MS4s were established in Virginia's Chesapeake Bay Watershed Implementation Plan.

Part I.E – Annual Reporting - 9VAC 25-870-440

Compliance with this permit will be evaluated on the basis of program progress and results over the reporting periods throughout the life of the permit. This permit refines the reporting requirements to more specifically monitor the effectiveness of the MS4 Program. Given the large number of variables regarding municipal stormwater, it is impractical to expect a chemical monitoring program to demonstrate pollutant load reductions or ambient water quality improvements resulting from MS4 Program implementation during a single permit term.

Similarly, it is not possible to evaluate pollutant load reductions, ambient water quality improvements or the overall effectiveness of the program by utilizing only the effectiveness indicators found in this permit.

Reports are to be submitted on an annual basis and to be aligned with the permittee's fiscal year. The permittee is required to maintain an MS4 Program Plan that details the MS4 program and progress including all annual reports and is available for public review.

As appropriate, the Department may specify additional requirements or compliance schedules in order to achieve the level of implementation and progress deemed necessary by the Department to achieve water quality protection and meet the intent of the MS4 permitting program.

Part I.F – Definitions This portion of the permit provides definitions for those terms not explicitly defined in applicable statutes or regulations.

Part II, Conditions Applicable to All VPDES Permits The VPDES Permit Regulation at 9VAC 25-870-430 requires all VPDES permits to contain or specifically cite the conditions listed.

20. **TOXICS MONITORING/TOXICS REDUCTION AND WET LIMIT SPECIAL CONDITIONS RATIONALE:** Not Applicable

21. **OTHER CONSIDERATIONS IN LIMITATION DEVELOPMENT:**

VARIANCES/ALTERNATE LIMITATIONS: Not applicable

SUITABLE DATA: Periodic discharge monitoring is not required of this facility. The permit requires however, ambient stream monitoring for conventional pollutants, bacteria, and toxicity as well as extensive annual reporting regarding best management practices and stormwater pollution prevention plans.

CONSISTENCY WITH STATE AND LOCAL LAW OR REGULATION: Section 9VAC 25-870-320 provides that a VSMP permit cannot infringe on any state or local law or regulations. This is consistent with federal language found at 40 CFR 122.5(c). Although the municipality may not have ownership of the acreage discharging to receiving waters through its MS4, it can use its legal authority granted by the Commonwealth of Virginia to control the pollutant contributions in a manner consistent with established local ordinances and to implement mechanisms necessary to meet

conditions established by the permit. As this permit only regulates the discharge of municipal stormwater and not the municipality, the permit cannot infringe on other state or local laws such as those pertaining to land use and zoning, which are clearly defined by provisions of other federal, state or local code. EPA recognized these limitations, specifically those regarding land use, in its Phase II Stormwater Regulations in the Federal Register Vol. 222 (Page 68762) which states, "Land use planning is within the authority of local governments and disagrees that, the implication of [the Phase II rule] dictates any such land use decisions."

PERMIT FLEXIBILITY: During its regulatory action to establish the Phase I Stormwater Regulations, EPA provided guidance for implementing the regulations. As stated in the Federal Register, Vol. 55, No. 222, November 16, 1990 (Page 47994) "EPA and the States will strive to achieve environmental results in a cost effective manner by placing high priority on pollution prevention activities, and by targeting activities based on reducing risk from particular harmful pollutants and/or discharges to high value waters." To this end, the Department recognizes that, in most instances, the permittee is best suited to determine the specificity, design and targeting of the comprehensive stormwater management programs to address priorities in a cost effective manner. As such, the permit provides flexibility for the permittee while still establishing specific, enforceable permit conditions in accordance with applicable laws and regulations. This promotes the identification, targeting and control of stormwater pollutant sources in an appropriate manner given the available control alternatives.

22. **303(d) LISTED SEGMENTS:**

The permittee discharges to multiple receiving streams some of which may be listed on the current (2012) 303(d) list. Attachment 3 includes a list of the 303(d) listed waterbodies for which a TMDL has been approved and the permittee given a wasteload allocations for the pollutant(s) of concern.

23. **NPDES INDUSTRIAL PERMIT RATING WORKSHEET SCORE:** 700 SEE ATTACHMENT 4

24. **Public Notice Information required by 9VAC 25-870-530:**

Publication: *Richmond Times-Dispatch*

Publication Dates: October 3, 2014 and October 10, 2014

Comment Period: Start Date: October 3, 2014 End Date: November 3, 2014

DEQ accepts comments and requests for public hearing by hand delivery, e-mail, fax, or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses, and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant, based on individual requests for a public hearing, and there are substantial, disputed issues relevant to the permit.

Ms. Jaime Bauer
Department of Environmental Quality
Office of VPDES Permits
P. O. Box 1105
Richmond, Virginia 23218

For additional information, including a copy of the Chesterfield County draft individual MS4 permit and permit fact sheet, or to review copies of materials or applicable laws and regulations, contact Ms. Jaime Bauer at (804) 698-4416 or at the address above.

PUBLIC COMMENTS RECEIVED ON DRAFT PERMIT: A total of 410 comments were received during the comment period including some requests for a public hearing. See Attachment 5 for a summary of the public comments, hearing requests, DEQ's response to comments, and public hearing statutory requirements.

Following the comment period the draft permit was revised to address comments that were received as well as to make corrections and clarify permit and reporting requirements. A listing of revisions in draft permit following the comment period is included in Attachment 6.

25. **Additional Comments:**

- a. **Previous Board Action:** None
- b. **Staff Comments:** None
- c. **Other Comments:** None

26. **SUMMARY OF FACT SHEET ATTACHMENTS:**

Attachment 1 - Site Inspection Report
Attachment 2 - Jurisdictional Map
Attachment 3 - 303(d) Listed Segments with an approved TMDL
Attachment 4 - NPDES Rating Worksheet
Attachment 5 - Public Comment Examples and Dispensation of Requests for a Public Hearing Memorandum
Attachment 6 – Changes to the Draft Permit